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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,477

02/06/2004

Yoshio Sasaki

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EXAMINER

SAUNDERS JR, JOSEPH

ART UNIT

PAPER NUMBER

2614

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,477

Applicant(s)

SASAKI, YOSHIO

Examiner

Joseph Saunders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,8-10,13,14 and 16-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,8-10,13,14 and 16-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 12, 2009 has been entered. Claims 1, 3, 6, 8 – 10, 13, 14, and 16 – 23 are currently pending and considered below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6, 8 – 10, 13, 14, 16, 17, 19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mercer et al. (US 7,043,477 B2), hereinafter Mercer, in view of Iwashima (US 4,667,314), hereinafter Iwashima, Han et al. (US 2002/0031071 A1), hereinafter Han, and Hartley (US 2002/0103796 A1), hereinafter Hartley.

Claim 1: Mercer discloses an audio playback apparatus comprising: a sound source storing (computer readable medium 110) folders (directories, playlists, or

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playlist groups), wherein at least one of the folders includes albums (groups e.g., album, artist, genre), and at least one of the albums includes music files (group of audio files), and wherein the folders and the albums are arranged in a hierarchical manner (hierarchical data structure); playback unit specification means (consumer electronic device 112 including input module 114, interface module 116, and selection module 118) for specifying a shuffle unit (directory, playlist, playlist group, group e.g., album, artist, genre, and also "individual media file level") as any one of a folder, an album, and a music file, for use in selecting music file group; music file group selection means for randomly selecting a music file group in accordance with the shuffle unit; and playback means for reproducing the music files included in the selected music file group before reproducing music files included in the next music file group ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in the next music file group. Mercer does suggest shuffle or random play options

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may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before reproducing music files in the next music file group (groups of Mercer e.g., album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

Mercer and Iwashima do not explicitly state that the music files themselves are arranged in a hierarchical manner; however Mercer does state "Those skilled in the art will appreciate that the playlists and hierarchical structures described herein are merely exemplary. It is contemplated by the inventors that the invention includes other playlists, hierarchical structures, and

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the like, including any combination of audio data, video data, or still image,"

Column 9 Lines 9 – 63).

Han teaches a method of recording MP3 tracks onto a disc, "Specially, FIG. 6 illustrates a case that of sequentially numbering the MP3 tracks according to a horizontal hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0093]. "Meanwhile, FIG. 7 illustrates a case that of sequentially numbering the MP3 tracks according to a vertical hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0097]. Therefore given the variety of methods for hierarchically structuring data taught by Han ([0091] – [0101] and Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a means for specifying a shuffle unit and wherein a music file group comprises at least two music files (Figure 3 e.g., GROUP 3); Mercer does not disclose means for specifying a shuffle range, and therefore does not teach the next music file group is selected from within the shuffle range. Hartley teaches, "Many players afford the users the ability to play music in random order. However, a combination of random selection and some

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sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shuffle range as taught by Hartley in addition to the shuffle unit as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

Claim 3: Mercer, Iwashima, Han, and Hartley disclose the audio playback apparatus according to claim 1, and Mercer discloses the invention further comprising: album (groups e.g., album, artist, genre) selection means for randomly selecting an album from the selected music file group, if the playback unit specification means specifies the folder (directory, playlist, or playlist group) is specified by said playback unit specification means; wherein the playback means reproduces the music files for each selected album ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random

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artist before proceeding to the next random artist.") (Mercer Column 4 Line 29 – Column 6 Line 59 and Column 9 Lines 9 – 63).

Claim 6: Mercer, Iwashima, Han, and Hartley disclose the audio playback apparatus according to claim 1, and Mercer discloses further wherein the playback means sequentially reproduces the music files included in the selected music file group in the order of their recording (Mercer Column 21 Lines 28 – 38).

Claim 8: Mercer discloses an audio playback apparatus comprising: a sound source storing (computer readable medium 110) folders (directories, playlists, or playlist groups), wherein at least one of the folders includes albums (groups e.g., album, artist, genre), and at least one of the albums includes music files (group of audio files), and wherein the folders and the albums are arranged in a hierarchical order (hierarchical data structure); album selection means for randomly selecting one of the albums to be reproduced from the sound source; and playback means for reproducing the music files in the selected album before reproducing music files in the next album ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre)

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before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in the next music file group. Mercer does suggest shuffle or random play options may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before reproducing music files in the next music file group (groups of Mercer e.g., album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

Mercer and Iwashima do not explicitly state that the music files themselves are arranged in a hierarchical order; however Mercer does state "Those skilled in the art will appreciate that the playlists and hierarchical structures described herein are merely exemplary. It is contemplated by the inventors that the invention includes other playlists, hierarchical structures, and the like, including any combination of audio data, video data, or still image," Column 9 Lines 9 – 63).

Han teaches a method of recording MP3 tracks onto a disc, "Specially, FIG. 6 illustrates a case that of sequentially numbering the MP3 tracks according to a horizontal hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0093]. "Meanwhile, FIG. 7 illustrates a case that of sequentially numbering the MP3 tracks according to a vertical hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0097]. Therefore given the variety of methods for hierarchically structuring data taught by Han ([0091] – [0101] and Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a selection means for randomly selecting one of the albums; Mercer does not disclose means for specifying a shuffle range, and therefore does not teach selecting the next album from within the shuffle range. Hartley teaches, "Many players afford the users the ability to play music in random order. However, a combination of random selection and some sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shuffle range as taught by Hartley in addition to the shuffle means as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

Claim 9: Mercer discloses an audio playback apparatus comprising: a sound source storing (computer readable medium 110) folders (directories, playlists, or playlist groups), wherein at least one of the folders includes albums (groups e.g., album, artist, genre), and at least one of the albums includes music files (group of audio files), and wherein the folders and the albums are arranged in a hierarchical order (hierarchical data structure); folder selection means for

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randomly selecting one of the folders to be reproduced from the sound source; and playback means for reproducing the music files in the selected folder before reproducing music files in the next folder ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in the next music file group. Mercer does suggest shuffle or random play options may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by

Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before reproducing music files in the next music file group (groups of Mercer e.g., album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

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Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a selection means for randomly selecting one of the folders; Mercer does not disclose means for specifying a shuffle range, and therefore does not teach selecting the next folder from within the shuffle range. Hartley teaches, "Many players afford the users the ability to play music in random order. However, a combination of random selection and some sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shuffle range as taught by Hartley in addition to the shuffle means as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

Claim 10: Mercer discloses an audio playback method comprising the steps of: specifying, in a sound source (computer readable medium 110), a shuffle unit (directory, playlist, playlist group, group e.g., album, artist, genre, and also "individual media file level") as any one of a folder, an album, and a music file, for use in selecting music file groups; wherein the sound source stores folders (directories, playlists, or playlist groups), and at least one of the folders including albums (groups e.g., album, artist, genre), and at least one of the albums including music files (group of audio files), and wherein the folders and the albums are arranged in a hierarchical manner (hierarchical data structure); randomly selecting a music file group in accordance with the shuffle unit; and reproducing the music files included in the selected music file group before reproducing music files included in the next music file group ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in

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the next music file group. Mercer does suggest shuffle or random play options may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before reproducing music files in the next music file group (groups of Mercer e.g., album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

Mercer and Iwashima do not explicitly state that the music files themselves are arranged in a hierarchical manner; however Mercer does state "Those skilled in the art will appreciate that the playlists and hierarchical structures described herein are merely exemplary. It is contemplated by the

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inventors that the invention includes other playlists, hierarchical structures, and the like, including any combination of audio data, video data, or still image," Column 9 Lines 9 – 63).

Han teaches a method of recording MP3 tracks onto a disc, "Specially, FIG. 6 illustrates a case that of sequentially numbering the MP3 tracks according to a horizontal hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0093]. "Meanwhile, FIG. 7 illustrates a case that of sequentially numbering the MP3 tracks according to a vertical hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0097]. Therefore given the variety of methods for hierarchically structuring data taught by Han ([0091] – [0101] and Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a means for specifying a shuffle unit and wherein a music file group comprises at least two music files (Figure 3 e.g., GROUP 3); Mercer does not disclose means for specifying a shuffle range, and therefore does not teach the next music file group is selected by a processor from within the shuffle range. Hartley teaches, "Many players afford the users the

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ability to play music in random order. However, a combination of random selection and some sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shuffle range as taught by Hartley in addition to the shuffle unit as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

Claim 13: Mercer, Iwashima, Han, and Hartley disclose the audio playback method according to claim 10, and Mercer discloses the invention further comprising the step of: randomly selecting an album (groups e.g., album, artist, genre) from said selected music file group if, from said sound source recording a folder (directory or playlist), an album formed in said folder, and a music file formed in said album in a hierarchical manner, said folder is specified in said playback unit specification step; wherein said playback step reproduces music files for each selected album ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for

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example, playback of all songs by a random artist before proceeding to the next random artist.") (Mercer Column 4 Line 29 – Column 6 Line 59 and Column 9 Lines 9 – 63).

Claim 14: Mercer discloses a computer readable media storing a computer program that causes a processor to perform a method , the method comprising: specifying, in a sound source (computer readable medium 110) in a hierarchical manner (hierarchical data structure), a shuffle unit (directory, playlist, playlist group, group e.g., album, artist, genre, and also "individual media file level") as any one of a folder, an album, and a music file, for use in selecting music file groups, wherein the sound source stores folders (directories, playlists, or playlist groups), and at least one of the folders including albums (groups e.g., album, artist, genre), and at least one of the albums including music files (group of audio files), and wherein the folders and the albums are arranged in a hierarchical manner (hierarchical data structure); randomly selecting a music file group in accordance with the specified unit; and reproducing the music files included in the selected music file group before reproducing music files included in the next music file group ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in the next music file group. Mercer does suggest shuffle or random play options may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before reproducing music files in the next music file group (groups of Mercer e.g.,

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album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

Mercer and Iwashima do not explicitly state that the music files themselves are arranged in a hierarchical manner; however Mercer does state "Those skilled in the art will appreciate that the playlists and hierarchical structures described herein are merely exemplary. It is contemplated by the inventors that the invention includes other playlists, hierarchical structures, and the like, including any combination of audio data, video data, or still image," Column 9 Lines 9 – 63).

Han teaches a method of recording MP3 tracks onto a disc, "Specially, FIG. 6 illustrates a case that of sequentially numbering the MP3 tracks according to a horizontal hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0093]. "Meanwhile, FIG. 7 illustrates a case that of sequentially numbering the MP3 tracks according to a vertical hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0097]. Therefore given the variety of methods for hierarchically structuring data taught by Han ([0091] – [0101] and Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the

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reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a means for specifying a shuffle unit and wherein a music file group comprises at least two music files (Figure 3 e.g., GROUP 3); Mercer does not disclose means for specifying a shuffle range, and therefore does not teach the next music file group is selected from within the shuffle range. Hartley teaches, "Many players afford the users the ability to play music in random order. However, a combination of random selection and some sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shuffle range as taught by Hartley in addition to the shuffle unit as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

Claim 16: Mercer, Iwashima, Han, and Hartley disclose the media according to claim 14, and Mercer discloses wherein the method further comprises: randomly selecting an album from the selected music file group (groups e.g., album, artist,

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genre) if a folder is specified by said playback unit specification function; wherein the playback function reproduces music files for each selected album ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example, playback of all songs by a random artist before proceeding to the next random artist.") (Mercer Column 4 Line 29 – Column 6 Line 59 and Column 9 Lines 9 – 63).

Claim 17: Mercer, Iwashima, Han, and Hartley disclose the audio playback apparatus according to claim 1, further comprising: mode selection means for selecting a first or second reproducing mode through a user interface (consumer electronic device 112 including input module 114, interface module 116, and selection module 118), wherein the first reproducing mode allows for random playback on an album basis and the second reproducing mode allows for random playback on an individual music file basis ("Such shuffle or random play options may operate at the group level or at the individual media file level," Mercer Column 4 Line 29 – Column 6 Line 59 and Column 9 Lines 9 – 63).

Claim 19: Mercer, Iwashima, Han, and Hartley disclose the audio playback method according to claim 10, further comprising: selecting a first or second reproducing mode through a user interface (consumer electronic device 112 including input module 114, interface module 116, and selection module 118), wherein the first reproducing mode allows for random playback on an album

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basis and the second reproducing mode allows for random playback on an individual music file basis ("Such shuffle or random play options may operate at the group level or at the individual media file level," Mercer Column 4 Line 29 – Column 6 Line 59 and Column 9 Lines 9 – 63).

Claim 23: Mercer discloses an audio playback apparatus comprising: a sound source (computer readable medium 110) configured to store folders (directories, playlists, or playlist groups), wherein at least one of the folders includes albums (groups e.g., album, artist, genre), and at least one of the albums includes music files (group of audio files), and wherein the folders, the albums, and the music files are arranged in a hierarchical manner (hierarchical data structure); a user interface configured to receive a user input (consumer electronic device 112 including input module 114, interface module 116, and selection module 118), the user input comprising a shuffle unit (directory, playlist, playlist group, group e.g., album, artist, genre, and also "individual media file level") as any one of a folder, an album, and a music file, for use in selecting music file groups, a system control unit configured to randomly select a music file group in accordance with the shuffle unit, and randomly select a next music file group; and an output unit configured to reproduce the music files included in the selected music file group before reproducing music files included in the next music file group ("The user also can manipulate the created playlists by shuffling or repeating the playlists. Such shuffle or random play options may operate at the group level or at the individual media file level, which allows, for example,

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playback of all songs by a random artist before proceeding to the next random artist.") (Column 4 Line 29 – Column 6 Line 59).

While it is clear that Mercer teaches playback means for reproducing the music files in the selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre); Mercer does not teach playback means for **randomly** reproducing the music files in the selected music file group before reproducing music files in the next music file group. Mercer does suggest shuffle or random play options may operate at the individual media file level. Iwashima discloses a similar playback means for reproducing the music files (tunes) in the selected music file group (album) before reproducing music files in the next music file group (album) and further illustrates the playback means with the claimed "random" option (See Figures 1 – 3 in particular Figure 2C). Therefore, given that it was well known in the art at the time of the invention to not only reproduce music files in a selected music file group (groups e.g., album, artist, genre) before reproducing music files in the next music file group (groups e.g., album, artist, genre) as disclosed by Mercer, but also to randomly reproduce music files in a selected music file group before reproducing music files in the next music file group as taught by Iwashima; one of ordinary skill in the art at the time of the invention would have found it obvious since Mercer also suggests shuffle or random play options may operate at the individual media file level to include the option in the manner taught by Iwashima, thereby allowing for randomly reproducing the music files in the selected music file group (groups of Mercer e.g., album, artist, genre) before

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reproducing music files in the next music file group (groups of Mercer e.g., album, artist, genre), which has the advantage of providing a greater variety of playback modes, one of which may be preferable to the user.

Mercer and Iwashima do not explicitly state that the music files themselves are arranged in a hierarchical manner; however Mercer does state "Those skilled in the art will appreciate that the playlists and hierarchical structures described herein are merely exemplary. It is contemplated by the inventors that the invention includes other playlists, hierarchical structures, and the like, including any combination of audio data, video data, or still image," Column 9 Lines 9 – 63).

Han teaches a method of recording MP3 tracks onto a disc, "Specially, FIG. 6 illustrates a case that of sequentially numbering the MP3 tracks according to a horizontal hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0093]. "Meanwhile, FIG. 7 illustrates a case that of sequentially numbering the MP3 tracks according to a vertical hierarchy of the tree structure referring to the file system of the MP3 track recorded onto the inserted disc 101," [0097]. Therefore given the variety of methods for hierarchically structuring data taught by Han ([0091] – [0101] and Figure 6 and 7), it would have been obvious to one of ordinary skill in the art at the time of the invention given the motivation of Mercer to use a hierarchical structure as disclosed by Han in the invention of Mercer and Iwashima, since "there is provided the advantages that of classifying and numbering the audio and the MP3 tracks recorded onto the inserted disc, and normally performing the

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reproducing operation for the audio and the MP3 tracks for the user's command for reproducing," Han [0111].

Further, while Mercer teaches a means for specifying a shuffle unit and wherein a music file group comprises at least two music files (Figure 3 e.g., GROUP 3); Mercer does not disclose the user input also comprising a shuffle range, and therefore does not teach the next music file group is selected from within the shuffle range. Hartley teaches, "Many players afford the users the ability to play music in random order. However, a combination of random selection and some sort of preference would be useful," [0021]. Hartley goes on and teaches that such a preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023], "the player would then perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include user input for a shuffle range as taught by Hartley in addition to the shuffle unit as taught by Mercer, thereby allowing for a sort preference to be included in the invention of Mercer, Iwashima, and Han having the advantage of "allowing the user to eliminate files that do not fit a particular category," Hartley [0031].

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4. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mercer, Iwashima, Han, and Hartley in view of Zamir et al. (US 2003/0236582 A1), hereinafter Zamir.

Claim 18: Mercer, Iwashima, Han, and Hartley disclose the audio playback apparatus according to claim 1, but do not disclose the invention further comprising a touch screen user interface. Mercer does disclose using a touch pad as an input device or user interface selection device and also gives other examples (Column 18 Lines 12 – 27). Zamir discloses a similar audio device and teaches using a touch screen to allow for input by a user [0109] and [0174]. Therefore, give that Mercer contemplates using alternative methods for user input and Zamir teaches it is well known to use a touch screen, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a touch screen as disclosed by Zamir in the invention of Mercer, Iwashima, Han, and Hartley, thereby allowing for intuitive user interface to input selections.

Claim 20 is substantially similar in scope to claim 18 and therefore is rejected for the same reasons.

5. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mercer, Iwashima, Han, and Hartley in view of Schilling, Jr. et al. (US 6,707,768 B2), hereinafter Schilling.

Claim 21: Mercer, Iwashima, Han, and Hartley disclose audio playback apparatus according to claim 1, wherein the shuffle range is selected by a user, but do not explicitly disclose the shuffle range selectable as "all", "folder", and "album" and therefore do not explicitly teach if the shuffle range is selected as all, then the next music file group is selected randomly from among all areas of the sound source; if the shuffle range is selected as folder, then the next music file group is selected randomly from among a current folder of the music file group; and if the shuffle range is selected as album, then the next music file group is selected randomly from among a current album of the music file group. Hartley does teach that a sort preference can be implemented through the use of a range of values for a parameter, a parameter including any property of the file that is tracked by the player [0023]. Hartley also teaches that it is advantageous to have a user defined parameter in order to "perform the shuffle on only those files having a value for a particular user-defined parameter, allowing the user to eliminate files that do not fit a particular category," [0031]. Schilling also teaches randomized playback of tracks in a multimedia player and also gives additional examples of sort preferences according to category including "shuffle all" and "if "shuffle all" is not enabled, then shuffle by individual disc is processed," Column 2 Lines 44 – 67. Further, Mercer, Iwashima, Han, and Hartley previously taught categories or folders (directories, playlists, or playlist groups), albums (groups e.g., album, artist, genre), and music files (group of audio files), arranged in a hierarchical manner (hierarchical data structure), where, "metadata is obtained from the input media files for use in defining groups," Mercer Column 4 Line 29 –

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Column 6 Line 59 and Column 7 Lines 1 – 2. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the metadata (parameter of a file that is tracked by the player as taught by Hartley) defining the categories as disclosed by Mercer, as a user-definable parameter as suggested by Hartley to enable a shuffle range parameter of “shuffle all” and “shuffle disc” as taught by Schilling, and also a “shuffle folder” since the folder parameter is defined by the invention of Mercer, Iwashima, Han, and Hartley, thereby allowing for user-definable sort preferences or shuffle ranges as taught by Hartley and further exemplified by Schilling, “allowing the user to eliminate files that do not fit a particular category,” Hartley [0031].

Claim 22 is substantially similar in scope to claim 21 and therefore is rejected for the same reasons.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3, 6, 8 – 10, 13, 14, and 16 – 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is

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(571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./

Examiner, Art Unit 2614

/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614